



## DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P. O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO

ATTENTION OF

February 6, 2004

### Operations Division

### Regulatory Branch

Project Manager

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## **STANDARD OPERATING PROCEDURES FOR IMPLEMENTING COMPENSATORY MITIGATION WITHIN THE NEW ORLEANS DISTRICT**

### **PUBLIC NOTICE**

**Public Notice Purpose:** Pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403) and Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344), the U.S. Army Corps of Engineers, New Orleans District, Regulatory Branch is soliciting comments from all interested parties on the development and utilization of standard operating procedures for use in determining appropriate mitigation necessary to fully compensate for all unavoidable impacts to wetland resources including other waters of the United States that result from projects authorized through the Department of the Army permit program and for the review and establishment of mitigation banks.

The attached draft standard operating procedures have been prepared as part of the National Mitigation Action Plan to improve the success of compensatory mitigation on a nationwide basis and to provide a measure of consistency in mitigation requirements and policy for the regulated community. It should be noted that these procedures are being developed as a technical guide to assist applicants and consultants in satisfying compensatory mitigation requirements. These procedures are to be used in conjunction with the national Mitigation Plan Checklist and Supplement, the national guidance entitled "Incorporating the National Research Council's Mitigation Guidelines Into the Clean Water Act Section 404 Program" and the Regulatory Guidance Letter 02-02.

Federal, state and local agencies and officials, Indian tribes, and other interested parties are encouraged to provide written comments to the New Orleans District. The comment period will close **30 days** from the date of this public notice advertisement. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request. Letters must reference the public notice subject, be addressed and mailed to the above address, to **ATTENTION: REGULATORY BRANCH.**

You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

Ronald J. Ventola  
Chief, Regulatory Branch

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## **Mitigation Standard Operating Procedures**

### **I. PURPOSE.**

This document establishes standard operating procedures (SOP) under which the U.S. Army Corps of Engineers, New Orleans District, Regulatory Branch (CEMVN) will determine the need, appropriateness and quantity of compensatory mitigation and assure that the required compensatory mitigation is consistent with the policies set forth in 33 CFR 320.4(r) (REGS), the Council for Environmental Quality's (CEQ) implementing regulations for the National Environmental Policy Act (NEPA), the February 7, 1990, Memorandum of Agreement between the Corps of Engineers and the Environmental Protection Agency (MOA), Regulatory Guidance Letter No.02-2 (REGAL), the Federal Guidance for the Establishment, Use and Operation of Mitigation Banks [Federal Register: 28 Nov 95 (Vol. 60, No. 228, pp. 58605-58614)] (Banking Guidance) and the Federal Guidance on the Use of In-Lieu-Fee Arrangements for Compensatory Mitigation under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act [Federal Register: 7 Nov 00 (Vol.65, No.216, pp.66913-66917)] (In-Lieu Fee Guidance). The SOP recognizes that there is flexibility within the established policies and attempts to incorporate this flexibility within these procedures. Generally, these procedures will be followed for the majority of permit actions. However, CEMVN may deviate from these procedures at its discretion on a case-by-case basis where a different approach may be either more practicable and/or environmentally preferable, depending up the circumstances involved.

The MOA defines mitigation to include: "avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts" (40 CFR 1508.20). The types of mitigation can be combined to form three general types: avoidance, minimization and wetland enhancement/restoration /creation (compensation). This SOP addresses the third type, compensatory mitigation. Compensatory mitigation is defined as all appropriate and practicable measures required to offset unavoidable adverse impacts to aquatic resources, which remain after all appropriate avoidance and practicable minimization has been required.

### **II. COMPENSATION FOR PROJECT IMPACTS**

#### **A. Determining need for compensation**

The objective of compensatory mitigation is to achieve "no net loss" of wetland functions. Army regulations state that mitigation shall be required for resource losses which are specifically identifiable, reasonably likely to occur, and of importance to the human or aquatic environment. This includes both direct and any foreseeable secondary impacts to aquatic resources resulting from individual and/or cumulative actions. Direct impacts are those that happen in direct response to the permitted activity, i.e., functional wetland losses within the footprint of the permitted activity (e.g., the loss of habitat in the footprint of a dam). Secondary impacts are those removed in time and/or distance in relation to the permitted activity (e.g., the secondary impact of dam construction is the inundation of the area behind the dam or impacts to habitat and/or fisheries downstream of the dam associated with hydroperiod changes). Secondary impacts beyond the action area that would have

occurred regardless of the permit decision (e.g., increases in traffic and noise could be judged as these types of impacts) are not considered in regulatory decision-making.

The regulations require appropriate and practicable compensatory mitigation to replace functional losses to aquatic resources, including wetlands. Therefore, CEMVN strives to achieve a goal of no overall net loss of wetland functions by offsetting unavoidable adverse impacts to existing aquatic resources associated with permit actions. Policies and other guidance regarding “no overall net loss of wetlands” recognize that no-net loss of wetlands functions may not be achieved in every permit action but CEMVN continues to strive to achieve this goal programmatically.

#### B. When To Begin Development Of A Compensatory Mitigation Plan

CEMVN follows the sequencing established in the MOA for individual permit applications. Sequencing first makes a determination that potential impacts have been avoided to the maximum extent practicable; remaining unavoidable impacts would then be mitigated to the extent appropriate and practicable by requiring steps to minimize impacts and then compensating for wetland functions. Applicants are advised early that compensatory mitigation is required to offset unavoidable adverse impacts but generally CEMVN does not encourage a formal mitigation plan be developed until we have determined that avoidance is not practicable and that the applicant has done everything practicable to minimize project impacts to aquatic resources.

CEMVN encourages applicants to develop a tentative mitigation plan to compensate for probable project related impacts as identified during pre-application meetings when avoidance and minimization of adverse project-related wetland impacts are stressed. However, it is not necessary to have the mitigation plan submitted as a part of the permit application. The primary purpose for early development of a mitigation plan is to allow an opportunity for review by the resource agencies and the interested public through the Corps’ public notice advertisement process. The early receipt of the applicant’s mitigation plan should assist in reaching a timely permit decision. The tentative mitigation plan may be as simple as stating that an appropriate offsite mitigation bank would be used. This is adequate since established mitigation banks have been reviewed and approved by the resource agencies. Should an applicant propose to use a mitigation bank early in the permit process, CEMVN will identify those banks that may provide appropriate mitigation for his/her proposal. **However, the amount of mitigation required cannot be determined because CEMVN has not determined whether all practicable steps to avoid and or minimize project impacts have been taken nor has it prepared a qualitative evaluation of the project site wetlands.**

#### C. What Constitutes Appropriate Mitigation.

CEMVN defines appropriate mitigation as that which is necessary to fully compensate for project related unavoidable adverse impacts to wetland functions. A compensatory mitigation plan should provide functional replacement within the same watershed as the activity. The compensatory mitigation should be undertaken adjacent or contiguous to the impacted site (on-site compensatory mitigation). If on-site compensatory mitigation is not practicable, off-site compensation should be undertaken, preferably “in-kind”, in close physical proximity to and in the same watershed as the impacted wetlands. In evaluating the appropriateness of compensatory

mitigation plans, CEMVN will consider its practicability in terms of cost, existing technology, and logistics in light of overall mitigation project purposes.

Generally, “in-kind” compensatory mitigation is preferable over “out-of-kind”. However, if the same or similar habitat is not available within the watershed of impact, the search may be expanded to adjacent watersheds. Where a project may have serious impacts to a locally important wetland function (i.e., the loss of flood control functions within a highly developed watershed) or where the impact would be identified in the public interest review as an unacceptable, the mitigation should be developed to compensate these important functions on-site or within the same watershed, even to the point of mitigating out-of-kind if necessary.

Mitigation should provide, at a minimum, one for one functional replacement (i.e., no net loss of functions). In the absence of more definitive information on the functions of specific wetlands sites, a minimum of 1 to 1 acreage replacement has been used by CEMVN as a reasonable surrogate for no net loss of wetland functions. However, this ratio may be greater where the functional value of the impacted area is demonstrably higher than the functional value of replacement wetlands or the likelihood of success of the mitigation project is questionable. CEMVN may, in some cases compensate at a ratio of less than 1 to 1 where the functional value associated with the impacted area is demonstrably low (i.e., farmed wetlands, etc.).

Under all circumstances, CEMVN makes the final determination as to the type and amount of compensatory mitigation. Third party agreements or the purchase of wetland acreage/credits prior to formal notification by CEMVN of compensatory mitigation requirements does not necessitate designation of that bank and/or amount of acreage/credits as appropriate compensatory mitigation.

#### D. Developing a Mitigation Plan.

After determining that compensatory mitigation will be required, CEMVN will request a plan from the applicant that fully compensates for project related adverse impacts on the aquatic environment. CEMVN, with input from the resource agencies, will assist the applicant in developing a mitigation plan. CEMVN will evaluate appropriateness of the proposed plan utilizing an acceptable assessment method (e.g., best professional judgment, Wetland Value Assessment, Ecological Value Assessment, Habitat Evaluation Procedures, napkin HEP, Hydrogeomorphic Assessment Method, etc.).

##### 1. Mitigation Plan Using a Bank or In-Lieu Fee Program.

CEMVN will allow the use of a mitigation bank or in-lieu fee program as compensation for unavoidable wetland impacts only if: 1) CEMVN determines that the function(s) to be lost or impacted by the proposed project is/are not critical site-specific function(s) which must be replaced onsite; and, 2) on-site compensatory mitigation is not practicable, or the use of a mitigation bank or in-lieu fee program is environmentally preferable to on-site mitigation. CEMVN will select the appropriate compensation by comparing the habitat type, hydrologic basin (and internal sub-basins) and geomorphologic setting of the proposed project site with that of the mitigation site.

For practical application of comparing these variables, CEMVN has used information from various sources to:

a) Identify a list of habitat classifications under which most vegetated wetland habitats within the New Orleans District can be categorized. Habitats fall into one of the following: bottomland hardwoods (BLH), swamp (SW), pine flatwood/savannah (PF/S), hardwood flats (HF), Coastal prairie (PRAIRIE), fresh marsh (FM), intermediate marsh (IM), brackish marsh (BM), and salt marsh (SM).

b) Divide the New Orleans District into 4 hydrologic basins<sup>1</sup>. Major watersheds in the state include: Lake Pontchartrain/Breton Sound/Chandeleur Sound (U.S.G.S. accounting units 080701<sup>2</sup>, 080702<sup>3</sup>, 080901<sup>4</sup>, & 080902), Terrebonne/Barataria Basin (U.S.G.S. accounting units 080703 & 080901<sup>4</sup> & U.S.G.S. cataloging units 08090301 & 08090302), Vermilion/Atchafalaya Basin (U.S.G.S. accounting unit 080801) and Calcasieu/Mermentau Basin (U.S.G.S. accounting unit 080802)

c) Divide the New Orleans District into 5 geomorphologic zones<sup>5</sup>: the Eastern Pleistocene Terrace, Western Pleistocene Terrace, Alluvial Valley, Mississippi Deltaic (Holocene) Coastal Marsh and Chenier Plain (Holocene) Coastal Marsh.

To insure that important water quality and flood attenuation functions are not removed from the impacted watershed, CEMVN will select appropriate banks by comparing the hydrologic and geomorphologic setting of the proposed project site with that of the mitigation site. “In-kind” habitat, the same geomorphologic setting and watershed are preferred.

#### Preferred Geographic Limits

SAME: Habitat type, Cataloging Unit (w/in the Hydrologic Basin), Geomorphologic Zone

Should appropriate mitigation sites or banking credits meeting the “Preferred Geographic Limits” be unavailable, in most cases the search may be expanded geographically to include a broader level of watershed, with the other variables remaining the same. However, due to man-made and/or natural features such as flood protection levees restricting the hydrologic input into

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1 U.S.G.S. Hydrologic Unit Map – 1974 for the State of Louisiana

2 Cataloging unit 08070100 (Lower Mississippi – Baton Rouge) will be considered in the 08070201 (Bayou Sara-Thompson) cataloging unit.

3 Cataloging unit 08070201 (Bayou Sara-Thompson) will be considered in the Expanded Geographic Limits only after other options in the Lake Pontchartrain/Breton Sound/Chandeleur Sound Basin have been exhausted.

4 Cataloging unit 08090100 (Lower Mississippi-New Orleans) will be considered in both the Lake Pontchartrain/Breton Sound/Chandeleur Sound Basin and the 08090301 cataloging unit (East Central Louisiana Coastal).

5 U.S.G.S. Geologic Map of Louisiana 1984

Cataloging units 08080101 and 08090301, geographic expansion beyond these watersheds is not allowed.

#### Expanded Geographic Limits

SAME: Habitat type, Hydrologic Basin, Geomorphologic Zone

The use of mitigation banking credits not meeting the criteria identified above will be considered only in extraordinary circumstances.

If mitigation banks or in-lieu fee arrangements are used to fulfill compensation requirements, the party(s) identified as responsible for administering those facets of the bank or the in-lieu fee arrangement become liable for mitigation implementation and performance. Special conditions identifying those responsible for implementing mitigation will be included in the permit.

#### 2. Site Specific Mitigation Projects.

If an applicant proposes to compensate for project related impacts through a specific mitigation plan, CEMVN will evaluate the proposal in coordination with interested resource agencies to determine whether the plan provides appropriate mitigation and fully compensates unavoidable impacts to wetland resources. To be appropriate, the applicant's mitigation plan should target the same habitat type, located within the same watershed as the impact and fully compensate for project related impacts. If the project-specific mitigation proposal is located outside the basin of impact, CEMVN will determine the availability of appropriate mitigation within the cataloging unit or closer to the site of impact than the applicant's proposal. If the applicant's mitigation proposal is within the watershed, CEMVN must determine whether the proposal fully compensates for all unavoidable impacts, the likelihood of success and establish long-term monitoring, maintenance and protection criteria. CEMVN will use the same methodology to determine the wetland impacts at the proposed project site and required compensation at the mitigation site.

For project-specific compensatory mitigation projects, the permittee is responsible for assuring success and protection over the long-term similar to that required of a mitigation bank sponsor as described below. To assure the success of a project specific mitigation project, CEMVN will include in individual permits special conditions or attach a copy of the signed interagency agreement identifying: 1) the party(s) responsible for meeting any or all components of compensatory mitigation requirements; 2) performance standards for determining compliance; and, 3) other requirements such as financial assurances, real estate assurances, monitoring programs, and the provisions for short and long-term maintenance of the mitigation site.

#### E. Timing of Compensatory Mitigation

The policy of the CEMVN is that mitigation should be performed in advance or concurrent with authorized impacts to the extent practicable. Where a permittee has agreed to compensate for unavoidable wetland functional losses at a mitigation bank, permit special conditions require that the permittee complete the agreed upon mitigation prior to beginning the authorized work. An



additional caveat is that the mitigation be performed within an agreed upon time frame usually prior to August 1 of the year following permit issuance even if the authorized work has not begun.

For those who propose a site-specific mitigation, CEMVN will require an approved comprehensive compensatory mitigation plan be developed through coordination with the concerned resource agencies prior to permit issuance. The approved plan will be attached to the permit and referenced in the permit special condition. The mitigation project should be implemented either prior to or concurrent with any work in wetlands at the authorized site. If the mitigation project is not to be implemented until after project construction has begun, the approved mitigation proposal will identify timing of the mitigation project construction. A performance bond (or some other financial assurance) equivalent to the amount needed by a third party to perform the mitigation project will be required as a permit special condition.

### III. ESTABLISHING A MITIGATION BANK

CEMVN will entertain requests to establish mitigation banks throughout the New Orleans District, but will focus its efforts on those arrangements that will contribute most toward replacing wetland functions lost through unavoidable impacts resulting from authorized through the Department of the Army (DA) permit program. Particular emphasis will be placed on proposals to restore or enhance wetlands in geographic areas in which impacts to such resources are anticipated due to current and projected future permit requests. CEMVN will follow procedures outlined in the Banking Guidance and the In-Lieu Fee Guidance for evaluating all proposals to establish mitigation banks.

The approval of a mitigation bank by CEMVN does not guarantee its utilization. CEMVN will not direct permit applicants to use a particular mitigation bank; however, it will allow permittees to fulfill their compensatory mitigation requirements by using an appropriate mitigation bank when appropriate.

Approval of a mitigation bank through the signing of an interagency agreement does not necessarily, in and of itself, grant DA authorization to construct the mitigation project. Permits (federal, state and/or local) may be required to perform the activities needed to implement the mitigation project. DA permits will typically be required for activities in jurisdictional wetlands/waters such as mechanized land-clearing, grading, installation of dikes, plugs and water control structures or placement of dredged or fill material. Permits will also be required for work, such as dredging, filling and installation of structures, if such work would occur in navigable waters, including tidal waters and wetlands. DA permits will not be required for work which would be performed solely in nonwetlands or prior-converted croplands or for activities in non-tidal wetlands which do not involve the placement of dredged or fill material in the wetlands (e.g., bushhogging, planting of tree seedlings, etc.). Should CEMVN require a permit for a activities associated with the establishment of a mitigation bank, the permit evaluation will run concurrent with the review of the mitigation bank and development of the interagency agreement and a permit decision made prior to signature of the interagency document. CEMVN will process the permit using the most expeditious means available utilizing Nationwide Permits or Regional General Permit where appropriate. Regardless of whether or not a permit is needed, all mitigation bank proposals will be evaluated by CEMVN through the public interest review process. Interested

resource and other regulatory agencies commenting on the bank proposal typically include the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), U.S. Environmental Protection Agency (EPA), Natural Resource Conservation Service (NRCS), Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Environmental Quality, Office of Environmental Services (DEQ) and, for projects in the Louisiana Coastal Zone, the Louisiana Department of Natural Resources, Coastal Management Division (CMD).

#### A. Proposing a Mitigation Bank

A prospective sponsor (typically a landowner) submits a prospectus to CEMVN that identifies a wetland restoration, enhancement or creation project he wishes to implement for the purpose of providing/selling restoration credits to satisfy compensatory requirements for impacts authorized through DA permits. Prior to submitting a formal document, there should be early consultation with the Corps and interested resource agencies explaining what the sponsor wishes to do. The prospective sponsor should provide maps and a brief explanation as to how he proposes to develop mitigation credits. However, prior to beginning a review of a potential mitigation bank a formal prospectus is necessary. The prospectus should contain:

1. Location map on 8.5 by 11-inch paper (a U.S.G.S. quadrangle map with the proposed site clearly delineated is preferred);
2. Nature of the sponsor's real estate interest in the proposed site (own, lease, easement, etc.);
3. Detailed description of existing conditions at the proposed mitigation site. The description should include pertinent soils information (a soils map from the Parish Soil Survey, with the mitigation site clearly delineated, may be attached), topographic characteristics, hydrologic conditions (including the presence of drainage ditches, canals, pumps, etc.) and existing land use(s). The description should also contain information on prior land uses and projected future land uses;
4. If applicable, the U.S. Department of Agriculture (U.S.D.A.) classification of the tract(s) (e.g., prior-converted, farmed wetland, etc.);
5. Total acreage encompassed within the mitigation bank and the specific acreage on which restoration, creation and/or enhancement measures will be implemented;
6. Detailed description of the wetland restoration, enhancement or creation measures to be undertaken (Note: mitigation credits will not be given for features implemented using public funds or for any work which is already in place);
7. When applicable, 8.5 by 11-inch, black-and-white drawings showing all work which must be performed, including all plugs, dikes and/or water control structures;
8. Detailed description of the long-term management and operation of the bank;
9. Funding source and description of the financial assurances, which will be secured by the landowner or sponsor to ensure that adequate funds are available to implement the mitigation and to maintain, manage and monitor the bank. Financial assurances may be in the form of a Surety Bond, Irrevocable Letter of Credit or Escrow Account. The amount of the assurance should be equivalent to the amount it would cost a third party to implement and maintain the bank. The cost of performing the work is to be determined by the sponsor with CEMVN approving the amount; and

10. A conservation servitude that protects the mitigation bank lands. The servitude must be granted to an agency, other than the Corps, or a non-profit conservation organization and must contain the restrictions specified in the agreement that is developed for the bank. The sponsor is responsible for identifying the recipient of the servitude. The servitude must be perpetual; however, a finite term may be specified for some mitigation banks in the Louisiana Coastal Zone. Prior to the approval of the bank, the property owner will normally be required to produce a title abstract or other verification that the title to the property is free of any liens or encumbrances that might conflict with the conservation purpose of the mitigation bank.

#### B. Developing an Interagency Agreement.

An interagency Mitigation Bank Review Team (MBRT) will be established to evaluate the prospectus. CEMVN chairs the MBRT. Other members of the MBRT include the U.S. Fish and Wildlife Service (FWS), the U.S. Environmental Protection Agency (EPA), the Louisiana Department of Wildlife and Fisheries (LDWF) and the Louisiana Department of Environmental Quality (DEQ) and CMD (if applicable). The review team may also include a representative from the National Marine Fisheries Service (NMFS) if mitigation involves coastal habitats, the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), as well as other state and federal agencies that may wish to participate in the review and evaluation of the mitigation bank. Each MBRT member will be forwarded a copy of the prospectus. At this time, CEMVN will determine the need for a permit and a public notice will be prepared advertising the proposed bank. Following publication of the public notice, a MBRT meeting will be held to inspect the proposed mitigation site and recommend modifications to the plan. The sponsor is not required to agree to the modifications, but refusal to do so will jeopardize the approval of the mitigation bank or reduce the amount of mitigation credit generated by the project. CEMVN, in consultation with the other MBRT members, will preliminarily determine if the site and proposed wetland restoration, enhancement and/or creation plan would be acceptable as a mitigation bank. If the preliminary decision is that the proposal would be acceptable, the sponsor and/or review team will develop an interagency agreement (banking instrument) that will address the following:

1. Goals and objectives, including reason and need for establishing the bank and mechanism and timing for performing the specified mitigation (e.g., restoration on an as-needed basis, restoration in advance of projected impacts, enhancement on an as-needed basis, enhancement in advance of project impacts, etc.).

2. Present and probable change of ownership of bank lands (name of the fee-title owner of the property, nature and verification of the arrangement between landowner and sponsor, mineral interest holder if other than landowner and description of existing liens and/or encumbrances on the property). Existing liens, which may conflict with the conservation purpose of the mitigation bank, must be subordinated prior to use of the bank.

3. Total acreage of bank and description of baseline conditions, including descriptions and acreages of existing wetland classes on the property, land uses (prior, existing and projected), applicable NRCS designation(s), topography, description and map of soil types and description of hydrologic conditions, including existence of levees, water control structures, pumps, ditches and other drainage features.

4. Description of the mitigation plan. The description should include classes and acreages of wetlands to be restored, enhanced, created and/or preserved and a detailed description

of all work that will be conducted to implement the plan and produce mitigation credit. The plan should contain pertinent maps, drawings and aerial photographs and provide applicable specifications for plantings, removal of undesirable vegetation and structural features such as plugs, water control structures, dikes, etc. Drawings should show the locations and design of structural features and should be in black and white on 8.5 by 11-inch paper.

5. Long-term maintenance and management plan.

6. Performance standards/success criteria. These criteria will be used to verify the success of the mitigation effort and may be used to determine credit availability and the need for remedial action.

7. Monitoring plan and reporting protocol.

8. Contingency and remedial actions and responsibilities.

9. Financial assurances. The sponsor will be required to establish a financial mechanism to guarantee the implementation and long-term management, maintenance and monitoring of the mitigation bank. The financial assurance may be in the form of a Surety Bond, Irrevocable Letter of Credit or Escrow Account. Once deposited, the funds may not be used or withdrawn by the sponsor unless approved by the MBRT. Funds will generally be released incrementally as specified criteria are met but will be forfeit by the sponsor in the event of default. Funds which are forfeited by the sponsor shall be used to complete or remediate the mitigation bank or may be donated to an agency or conservation organization to perform alternative wetland restoration, enhancement or creation, as approved by the MBRT. For mitigation banks that are not to be used to mitigate impacts occurring within the Louisiana Coastal Zone, the sponsor may select the agency or organization to receive the funds, subject to approval by the MBRT. For banks that will be utilized to mitigate impacts to wetlands within the Louisiana Coastal Zone, the Louisiana Department of Natural Resources requires that the funds default to the Louisiana Wetlands Conservation and Restoration Fund.

10. Calculation of mitigation credits or the mitigation/management potential will be based on the net increase in value or quality of the wetland area with the mitigation features in place versus the value or quality of the area if no action is taken.

11. Geographic service area. (i.e., the geographic area within which an impact should occur in order to be eligible for using the mitigation bank as compensation.)

12. Wetland classes and other aquatic resource impacts which may be mitigated through use of the mitigation bank.

13. Procedures for using the mitigation bank to compensate for specific wetland impacts, including the methodology to be employed to calculate the credits or acreage needed to offset future impacts and applicable compensation ratios, if any.

14. Accounting procedures. The sponsor will be responsible for maintaining and providing an annual ledger divulging all debit transactions. The ledger must include, for all debits, the name of the permittee, the permit number, the acreage or credits debited and the date of the debit or date the contract with the permittee was executed.

15. Provisions for protecting the restored, enhanced, created or preserved wetlands. The sponsor will be required to execute a conservation servitude on all lands that are used for mitigation. The servitude shall normally be perpetual, unless otherwise specified, and shall place certain restrictions on future uses of the property that would damage or degrade the protected lands. The conservation servitude will be executed by the Sponsor in accordance with the Louisiana Conservation Servitude Act (R.S. 9:1271 *et. seq.*) and recorded in the real estate records of the appropriate Parish. The landowner shall grant the servitude to an agency or non-profit conservation

organization approved by the MBRT. The landowner will generally be responsible for selecting the holder of the easement.

16. Procedures for modification of the banking agreement.

17. If applicable, provisions for transferring ownership of the mitigation bank lands and/or sponsorship of the mitigation bank. Provisions will include the transfer of responsibility/liability requirements identified in the banking agreement, all lands, accounting ledgers and other assets including any remaining funds in the escrow account that make up the mitigation bank. (See attachments or contact CEMVN, Regulatory Branch for a copy of the transfer form.)

Upon mutual agreement among participants, the completed bank agreement will be circulated for signature. No party will be required to sign the agreement; however, all signatories must abide by its terms. If a bank sponsor fails to comply with the agreement, recognition of the bank will be voided unless corrective actions are taken as prescribed in the agreement.

### C. Release of Credits

Items necessary for credit release include:

1. Signed interagency Agreement;
2. Recorded Conservation Servitude;
3. Financial institution acknowledgement of establishment of escrow account; and
4. Permits required to perform mitigative work.

## ATTACHMENTS

## **ATTACHMENT A**

### **MULTI-AGENCY COMPENSATORY MITIGATION PLAN CHECKLIST<sup>6</sup>**

- ? Mitigation Goals and Objectives
  - ? Describe functions lost at impact site
  - ? Describe functions to be gained at mitigation site
  - ? Describe overall watershed improvements to be gained
- ? Baseline Information for Impact and Proposed Mitigation Sites
  - ? Provide data on physical attributes of sites (soils, vegetation, hydrology)
  - ? Describe historic and existing land uses and resources impacted
  - ? Describe reference site attributes if available
- ? Mitigation Site Selection and Justification
  - ? Describe process of selecting proposed site
  - ? Likelihood of success, future land use compatibility, etc.
- ? Mitigation Work Plan
  - ? Location
  - ? Construction Plan
  - ? Describe planned hydrology, vegetation, soils, buffers, etc.
- ? Performance Standards
  - ? Identify success criteria
  - ? Compare functions lost and gained at impact and mitigation sites
  - ? Describe soils, vegetation and hydrology parameter changes
- ? Site Protection and Maintenance
  - ? List parties and responsibilities
  - ? Provide evidence of legal protective measures
  - ? Maintenance plan and schedule
- ? Monitoring Plan
  - ? Provide monitoring schedule, identify party (ies) and responsibilities
  - ? Specify data to be collected, including assessment tools and methodologies
- ? Adaptive Management Plan
  - ? Identify party (ies) and responsibilities
  - ? Remedial measures (financial assurances, management plan, etc.)
- ? Financial Assurances
  - ? Identify party (ies) responsible for assurances
  - ? Specify type of assurance, contents and schedule

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<sup>6</sup> Refer to “Supplement: Compensatory Mitigation Plan Checklist” for further explanation of specific checklist items

## ATTACHMENT B

### **SUPPLEMENT: COMPENSATORY MITIGATION PLAN CHECKLIST**

This document is intended as a technical guide for Clean Water Act (CWA) Section 404 permit applicants<sup>7</sup> preparing compensatory mitigation plans. Compensatory mitigation is required to offset impacts that cannot be avoided and minimized to the extent practicable. The purpose of this document is to identify the types and extent of information that agency personnel need to assess the likelihood of success of a mitigation proposal. Success is generally defined as: a healthy sustainable wetland/water that – to the extent practicable – compensates for the lost functions of the impacted water in an appropriate landscape/watershed position. This checklist provides a basic framework that will improve predictability and consistency in the development of mitigation plans for permit applicants. Although every mitigation plan may not need to include each specific item, applicants should address as many as possible and indicate, when appropriate, why a particular item was not included (For example, permit applicants who will be using a mitigation bank would not be expected to include detailed information regarding the proposed mitigation bank site since that information is included in the bank's enabling instrument). This checklist can be adapted to account for specific environmental conditions in different regions of the U.S.

#### **1. Mitigation Goals and Objectives**

##### **Impact Site**

- a. Describe and quantify the aquatic resource type and functions that will be impacted at the proposed impact site. Include temporary and permanent impacts to the aquatic environment.
- b. Describe aquatic resource concerns in the watershed (e.g. flooding, water quality, habitat) and how the impact site contributes to overall watershed/regional functions. Identify watershed or other regional plans that describe aquatic resource objectives.

##### **Mitigation Site**

- c. Describe and quantify the aquatic resource type and functions for which the mitigation project is intended to compensate.
- d. Describe the contribution to overall watershed/regional functions that the mitigation site(s) is intended to provide.

#### **2. Baseline Information - for proposed impact site, proposed mitigation site & if applicable, proposed reference site(s).**

##### **a. Location**

1. Coordinates (preferably using DGPS) & written location description (including block, lot, township, county, Hydrologic Unit Code (HUC) number, as appropriate and pertinent.
2. Maps (e.g., site map with delineation (verified by the Corps), map of vicinity, map identifying location within the watershed, NWI map, NRCS soils map, zoning or planning maps; indicate area of proposed fill on site map).
3. Aerial/Satellite photos.

- b. Classification – Hydrogeomorphic as well as Cowardin classification, Rosgen stream type, NRCS classification, as appropriate.

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<sup>7</sup> The checklist may be used in other federal or state programs as well; however, additional information may be needed to satisfy specific program requirements. For example, Attachment A indicates additional information needed by the Natural Resources Conservation Service (NRCS) to satisfy the Swampbuster provisions of the Food Security Act.



- c. Quantify wetland resources (acreage) or stream resources (linear feet) by type(s).
- d. Assessment method(s) used to quantify impacts to aquatic resource functions (e.g., HGM, IBI, WRAP, etc.); explain findings. The same method should be used at both impact and mitigation sites.
- e. Existing hydrology
  - 1. Water budget. Include water source(s) (precipitation, surface runoff, groundwater, stream) and losses(s). Provide budgets for both wet and dry years.
  - 2. Hydroperiod (seasonal depth, duration, and timing of inundation and/or saturation), percent open water.
  - 3. Historical hydrology of mitigation site if different than present conditions
  - 4. Contributing drainage area (acres).
  - 5. Results of water quality analyses (e.g., data on surface water, groundwater, and tides for such attributes as pH, redox, nutrients, organic content, suspended matter, DO, heavy metals).
- f. Existing vegetation
  - 1. List of species on site, indicating dominants.
  - 2. Species characteristics such as densities, general age and health, and native/non-native/ invasive status.
  - 3. Percent vegetative cover; community structure (canopy stratification).
  - 4. Map showing location of plant communities.
- g. Existing soils
  - 1. Soil profile description (e.g., soil survey classification and series) and/or stream substrate (locate soil samples on site map).
  - 2. Results of standard soils analyses, including percent organic matter, structure, texture, permeability.
- h. Existing wildlife usage (indicate possible threatened and endangered species habitat).
- i. Historic and current land use; note prior converted cropland.
- j. Current owner(s)
- k. Watershed context/surrounding land use.
  - 1. Impairment status and impairment type (e.g., 303(d) list) of aquatic resources.
  - 2. Description of watershed land uses (percentage forested, wetland, developed).
  - 3. Size/Width of natural buffers (describe, show on map).
  - 4. Description of landscape connectivity: proximity and connectivity of existing aquatic resources and natural upland areas (show on map).
  - 5. Relative amount of aquatic resource area that the impact site represents for the watershed and/or region (i.e., by individual type and overall resources).

### **3. Mitigation Site Selection & Justification**

- a. Site-specific objectives: Description of mitigation type(s), acreage(s) and proposed compensation ratios.
- b. Watershed/regional objectives: Description of how the mitigation project will compensate for the functions identified in the Mitigation Goals section 1(c).
- c. Description of how the mitigation project will contribute to aquatic resource functions within the watershed or region (or sustain/protect existing watershed functions) identified in the Mitigation

- Goals section 1(d). How will the planned mitigation project contribute to landscape connectivity?
- d. Likely future adjacent land uses and compatibility (show on map or aerial photo).
  - e. Description of site selection practicability in terms of cost, existing technology, and logistics.
  - f. If the proposed mitigation is off-site and/or out-of-kind, explain why on-site or “in-kind” options are not practicable or environmentally preferable.
  - g. Existing and proposed mitigation site deed restrictions, easements and rights-of-way. Demonstrate how the existence of any such restriction will be addressed, particularly in the context of incompatible uses.
  - h. Explanation of how the design is sustainable and self-maintaining. Show by means of a water budget that there is sufficient water available to sustain long-term wetland or stream hydrology. Provide evidence that a legally defensible, adequate and reliable source of water exists.
  - i. USFWS and/or NOAA Fisheries Listed Species Clearance Letter or Biological Opinion.
  - j. SHPO Cultural Resource Clearance Letter.

#### **4. Mitigation Work Plan**

- a. Maps marking boundaries of proposed mitigation types; include DGPS coordinates.
- b. Timing of mitigation: before, concurrent or after authorized impacts; if mitigation is not in advance or concurrent with impacts, explain why it is not practicable and describe other measures to compensate for the consequences of temporal losses.
- c. Grading plan
  - 1. Indicate existing and proposed elevations and slopes.
  - 2. Describe plans for establishing appropriate microtopography. Reference wetland(s) can provide design templates.
- d. Description of construction methods (e.g., equipment to be used)
- e. Construction schedule (expected start and end dates of each construction phase, expected date for as-built plan).
- f. Planned hydrology
  - 1. Source of water.
  - 2. Connection(s) to existing waters.
  - 3. Hydroperiod (seasonal depth, duration, and timing of inundation and saturation), percent open water, water velocity.
  - 4. Potential interaction with groundwater.
  - 5. Existing monitoring data, if applicable; indicate location of monitoring wells and stream gauges on site map.
  - 6. Stream or other open water geomorphic features (e.g., riffles, pools, bends, deflectors).
  - 7. Structures requiring maintenance (show on map) Explain structure maintenance in section 6(c).
- g. Planned vegetation
  - 1. Native plant species composition (e.g., list of acceptable native hydrophytic vegetation).
  - 2. Source of native plant species (e.g. salvaged from impact site, local source, seed bank) stock type (bare root, potted, seed) and plant age(s)/size(s).
  - 3. Plant zonation/location map (refer to grading plan to ensure plants will have an acceptable hydrological environment).
  - 4. Plant spatial structure – quantities/densities, % cover, community structure (e.g., canopy stratification).
  - 5. Expected natural regeneration from existing seed bank, plantings, and natural recruitment.

- h. Planned soils
  - 1. Soil profile
  - 2. Source of soils (e.g., existing soil, imported impact site hydric soil), target soil characteristics (organic content, structure, texture, permeability), soil amendments (e.g., organic material or topsoil).
  - 3. Erosion and soil compaction control measures.
- i. Planned habitat features (identify large woody debris, rock mounds, etc. on map).
- j. Planned buffer (identify on map).
  - 1. Evaluation of the buffer's expected contribution to aquatic resource functions.
  - 2. Physical characteristics (location, dimensions, native plant composition, spatial and vertical structure).
- k. Other planned features, such as interpretive signs, trails, fence(s), etc.

## **5. Performance Standards**

- a. Identify clear, precise, quantifiable parameters that can be used to evaluate the status of desired functions. These may include hydrological, vegetative, faunal and soil measures. (e.g., plant richness, percent exotic/invasive species, water inundation/saturation levels). Describe how performance standards will be used to verify that objectives identified in 3(b) and 3(c) have been attained.
- b. Set target values or ranges for the parameters identified. Ideally, these targets should be set to mimic the trends and eventually approximate the values of a reference wetland(s).

## **6. Site Protection and Maintenance**

- a. Long-term legal protection instrument (e.g. conservation easement, deed restriction, transfer of title).
- b. Party(ies) responsible and their role (e.g. site owner, easement owner, maintenance implementation). If more than one party, identify primary party.
- c. Maintenance plan and schedule (e.g. measures to control predation/grazing of mitigation plantings, temporary irrigation for plant establishment, replacement planting, structure maintenance/repair, etc.).
- d. Invasive species control plan (plant and animal).

## **7. Monitoring Plan**

- a. Party(ies) responsible for monitoring. If more than one, identify primary party.
- b. Data to be collected and reported, how often and for what duration (identify proposed monitoring stations, including transect locations on map).
- c. Assessment tools and/or methods to be used for data collection monitoring the progress towards attainment of performance standard targets.
- d. Format for reporting monitoring data and assessing mitigation status.
- e. Monitoring schedule

## **8. Adaptive Management Plan**

- a. Party(ies) responsible for adaptive management.
- b. Identification of potential challenges (e.g., flooding, drought, invasive species, seriously degraded site, extensively developed landscape) that pose a risk to project success. Discuss how the design accommodates these challenges.

- c. Discussion of potential remedial measures in the event mitigation does not meet performance standards in a timely manner.
- d. Description of procedures to allow for modifications of performance standards if mitigation projects are meeting mitigation goals, but in unanticipated ways.

**9. Financial Assurances**

- a. For each of the following, identify party(ies) responsible to establish and manage the financial assurance, the specific type of financial instrument, the method used to estimate assurance amount, the date of establishment, and the release and forfeiture conditions:
  - 1. Construction phase
  - 2. Maintenance
  - 3. Monitoring
  - 4. Remedial measures
  - 5. Project success
- b. Types of assurances (e.g., performance bonds, irrevocable trusts, escrow accounts, casualty insurance, letters of credit, etc.).
- c. Schedule by which financial assurance will be reviewed and adjusted to reflect current economic factors.

ATTACHMENT C

**NATURAL RESOURCES CONSERVATION SERVICE (NRCS)  
PROGRAM REQUIREMENTS<sup>8</sup>**

- ? NRCS conservation practice standards and specifications
- ? NRCS Environmental Evaluation
- ? Mitigation agreement
- ? Federal/State/Local required permits
- ? Compatible use statement:
  - ? Allowable uses (e.g. hunting, fishing)
  - ? Prohibited uses (e.g. grazing, silviculture)
  - ? Uses approved by compatible use permit
- ? Copy of recorded easement
- ? Subordination waiver on any existing liens on mitigation site
- ? Statement of landowner's tax liability
- ? Copy of Warranty Deed from landowner's attorney (no encumbrances, if so list)
- ? Copy of certified wetland determination:
  - ? NRCS-CPA-026 Highly Erodible Land and Wetland Conservation Certification
  - ? Wetland label map
- ? Copy of FSA Good Faith Waiver
- ? Copy of easement(s) ingress/egress granted to USDA employees for gaining legal access to mitigation site
- ? Copy of NRCS-CPA-38 Request for Certified Wetland Determination/Delineation

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<sup>8</sup> For a complete list of the program requirements needed by NRCS to satisfy the Swampbuster provisions of the Food Security Act see the National Food Security Act Manual.

**ATTACHMENT D**

**U.S. ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT**

**MITIGATION BANK TRANSFER FORM**

**MITIGATION BANK:** \_\_\_\_\_

When the work and/or mitigation authorized and required by the Interagency Agreement for the above-referenced Mitigation Bank are still in existence at the time this Mitigation Bank is transferred, all terms and conditions of that Interagency Agreement will become binding on the Transferee to the fullest extent of the law, the Transferee becoming the new Sponsor of the Mitigation Bank. To validate the transfer of this Mitigation Bank and the liabilities associated with compliance to the terms and conditions of the Interagency Agreement, the Transferee and Transferor sign and date below.

By signing and dating this Mitigation Bank Transfer, Transferee agrees to assume all legal liabilities associated with the Mitigation Bank and to abide by all conditions and requirements of the Interagency Agreement. The Interagency Agreement for the above-referenced Mitigation Bank is attached hereto and made a part hereof. By signing this Mitigation Bank Transfer, the Transferee also acknowledges the existence of the Conservation Servitude over the property composing the Mitigation Bank, a copy of which is attached hereto and made a part hereof.

\_\_\_\_\_  
Transferee  
(Print or Type)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Transferee's Signature  
(Print Or Type)

\_\_\_\_\_  
Transferee's Complete Mailing Address  
(Print Or Type)

\_\_\_\_\_  
Transferee's Telephone Number

By signing and dating this Mitigation Bank Transfer, Transferor agrees to transfer all lands, accounting ledgers and other assets including any remaining funds in the escrow account that make up the Mitigation Bank to Transferee.

\_\_\_\_\_  
Transferor  
(Print or Type)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Transferor's Signature  
(Print Or Type)

\_\_\_\_\_  
Transferor's Complete Mailing Address  
(Print Or Type)

\_\_\_\_\_  
Transferor's Telephone Number

Once completed, it is the responsibility of the Transferor to mail the original of this signed Mitigation Bank Transfer to:

U.S. Army Corps of Engineers  
ATTN: CEMVN-OD-S  
P.O. Box 20267  
New Orleans, LA 70160-0267

The Transferor and Transferee shall be provided copies of an approved Mitigation Bank Transfer by the Corps of Engineers.

Approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

BY:

\_\_\_\_\_  
CEMVN-OD-S